

IN THE CLAIMS:

Claims 1-236 (withdrawn).

237. (Currently Amended) A gastric stimulation device comprising:

- a housing;
- electronic circuitry contained within the housing;
- at least one stimulating electrode configured to be electrically coupled to the electronic circuitry, and configured to be ~~coupled to stomach tissue of a patient so that it is~~ positioned in electrical contact with the stomach tissue; and
- an attachment device coupled to the housing and operative to attach the housing from within a stomach cavity to a stomach wall;
- wherein the electronic circuitry is configured to deliver electrically stimulating signals to the stomach tissue through the at least one stimulating electrode.

238. (Previously presented) The gastric stimulation device of claim 237 wherein the at least one stimulating electrode is located on the attachment device.

239. (Previously presented) The gastric stimulation device of claim 237 wherein the at least one stimulating electrode is located on the housing.

240. (Previously presented) The gastric stimulation device of claim 237 further comprising an electrode anchoring device, wherein the electrode anchoring device is configured to attach the at least one electrode in electrical contact with a stomach wall.

241. (Withdrawn) The gastric stimulation device of claim 237 wherein the at least one electrode is electrically coupled to the electronic circuitry by a flexible lead.

242. (Previously presented) The gastric stimulation device of claim 240 wherein the at least one electrode is coupled through the attachment device to the electronic circuitry.

243. (Previously presented) The gastric stimulation device of claim 237, wherein the attachment device comprises a first portion arranged to extend into the stomach wall.

244. (Previously presented) The gastric stimulation device of claim 243 wherein the at least one electrode is located on the first portion of the attachment device so that the at least one electrode is located within the stomach wall when the stimulation device is attached to the stomach wall.

245. (Previously presented) The gastric stimulation device of claim 243 wherein when the attachment device is deployed, the first portion extends through the stomach wall in an orientation substantially perpendicular to the stomach wall.

246. (Previously presented) The gastric stimulation device of claim 243 wherein the attachment device comprises an expandable portion configured to expand to attach the attachment device to the stomach wall.

247. (Previously presented) The gastric stimulation device of claim 246 wherein the expandable portion is located distally of the first portion.

248. (Previously presented) The gastric stimulation device of claim 247 wherein when deployed, the expandable portion is configured to engage the outer surface of the stomach wall.

249. (Previously presented) The gastric stimulation device of claim 237 further comprising:

an anchor configured to fix the at least one electrode to the stomach wall, the anchor comprising:

a first portion arranged to extend into the stomach wall when the anchor is attached to the stomach wall; and

a second more distal portion with respect to the first portion, wherein when the attachment device is deployed, the second more distal portion engages the stomach wall to prevent the first portion from moving in a proximal direction out of the stomach wall.

250. (Previously presented) The gastric stimulation device of claim 249 wherein the anchor further comprises a third more proximal portion with respect to the first portion, wherein when the attachment device is deployed, the third more proximal portion engages the stomach wall to prevent the first portion from moving in a proximal direction out of the stomach wall.

251. (Previously presented) The gastric stimulation device of claim 249 wherein the at least one electrode is located on the first portion.

252. (Previously presented) The gastric stimulation device of claim 237 wherein the attachment device comprises a release mechanism operative to release the attachment device from engagement with the stomach wall.

253. (Previously presented) The gastric stimulation device of claim 237, wherein attachment device comprises an anchor removably attachable to the housing wherein the anchor is configured to attach the housing to the stomach.

254. (Previously presented) The gastric stimulation device of claim 253, wherein the attachment device comprises a release mechanism operative to release the housing from the anchor.

255. (Previously presented) The gastric stimulation device of claim 237 wherein the attachment device further comprises at least one laterally extending member arranged to be deployed to extend laterally of the attachment device within the stomach wall.

256. (Previously presented) The gastric stimulation device of claim 255 wherein the at least one laterally extending member is configured to secure the attachment device to the stomach wall.

257. (Previously presented) The gastric stimulation device of claim 255 wherein the at least one laterally extending member comprises a first electrode located thereon.

258. (Previously presented) The gastric stimulation device of claim 257 further comprising a second electrode wherein the laterally extending member is adjustable to vary the distance between the first electrode and the second electrode.

259. (Previously presented) The stimulation device of claim 237 wherein the electronic circuitry comprises telemetry circuit configured to receive a telemetry signal from an external device.

260. (Previously presented) The stimulation device of claim 259 wherein the telemetry signal comprises a representative signal configured to control the electrical stimulation delivered to the stomach wall through the at least one electrode.

261. (Previously presented) The stimulation device of claim 259 further comprising an external device comprising a telemetry circuit configured to emit the telemetry signal.

262. (Previously presented) The gastric stimulation device of claim 261 wherein the external device further comprises a patient actuatable control device coupled to the external device, wherein the patient actuatable control device is configured to instruct the external control unit to transmit the representative signal upon patient actuation of the patient actuatable control device.

263. (Previously presented) The gastric stimulation device of claim 237 further comprising:

a sensor coupled to the stimulation device, the sensor operative to sense a parameter indicative of a condition of the patient.

264. (Withdrawn) The stimulation device of claim 263 wherein the sensor comprises a pH sensing device.

265. (Withdrawn) The stimulation device of claim 263 wherein the sensor comprises a strain gauge.

266. (Withdrawn) The stimulation device of claim 265 wherein the strain gauge is located on the attachment device.

267. (Withdrawn) The stimulation device of claim 263 wherein the sensor comprises a temperature sensing device.

268. (Previously presented) The stimulation device of claim 263 wherein the sensor comprises the at least one electrode and wherein the electronic circuitry comprises an impedance determining circuit coupled to the at least one electrode.

269. (Previously presented) The stimulation device of claim 263 wherein the sensor comprises the at least one electrode arranged to sense electrical activity of the stomach wall, and wherein the electronic circuitry further comprises a circuit for determining the condition of the stomach from the electrical activity of the stomach wall sensed by the at least one electrode.

270. (Previously presented) The stimulation device of claim 263 wherein the electronic circuitry comprises:

a controller coupled to the sensor, wherein the sensor is arranged to provide an electrical signal representative of the sensed information to the controller; and

a memory device coupled to the controller, the memory device including a stimulation program, wherein the controller is arranged to cause the at least one electrode to deliver the stimulation program in response to the sensed condition.

271. (Previously presented) A gastric stimulation device of claim 237 wherein:

the housing is constructed of a first material resistant to corrosion when located within a stomach environment;

the housing further comprising an electrical connector arranged to electrically couple the at least one stimulating electrode to the electronic circuit; and

further comprising a sealing device operative to seal the connector from the stomach environment, wherein the sealing device is constructed of a sealing material resistant to corrosion from the stomach environment.

272. (Previously presented) The gastric stimulation device of claim 271 wherein the first material is suitable for long-term use within a stomach.

273. (Previously presented) The gastric stimulation device of claim 271 wherein the sealing material is suitable for long-term use within a stomach.

274. (Previously presented) A gastric stimulation device comprising:

a housing;

electronic circuitry contained within the housing;

at least one stimulating electrode coupled to the housing and electrically coupled to the electronic circuitry; and

an attachment device coupled to the housing and operative to attach the housing within a stomach cavity to a stomach wall so that the at least one stimulating electrode is in electrical contact with the stomach wall;

wherein the electronic circuitry is configured to deliver electrically stimulating signals to the stomach through the at least one stimulating electrode.

275. (Previously presented) A gastric stimulation device comprising an anchor for attaching an electrode to a wall of a stomach, the anchor including:

a first portion arranged to extend into the stomach wall from within the stomach so that the electrode is in electrical contact with the stomach wall.

276. (Previously presented) The stimulation device of claim 275 wherein the at least one electrode is located on the first portion of the anchor.

277. (Previously presented) The stimulation device of claim 275 further comprising a bumper arranged to prevent further movement of the first portion through the stomach wall.

278. (Previously presented) The stimulation device of claim 277 wherein the bumper is located proximally with respect to the first portion.

279. (Previously presented) The stimulation device of claim 275 further comprising a distal portion configured to engage the stomach wall when deployed to prevent movement of first portion into the stomach.

280. (Previously presented) A gastric stimulation device comprising:

housing means for containing electronic circuit means;
electrode means for electrically contacting stomach tissue,
the electrode means electrically coupled to electronic circuit means;

electronic circuit means for delivering electrically stimulating signals to the stomach through the electrode means;
and

an attachment means for attaching the housing means within a stomach cavity to a stomach wall.

281. (Previously presented) The gastric stimulation device of claim 280 further comprising a disengaging means for disengaging the housing means from the stomach wall.

282. (Previously presented) The gastric stimulation device of claim 280 further comprising an electrode anchor means for anchoring the electrode means to a stomach wall so that the electrode means is in electrical contact with the stomach wall.

283. (Previously presented) A method of stimulating a stomach wall comprising the steps of:

providing a gastric stimulator including a housing containing electronic circuitry therein, wherein the electronic circuitry is arranged to deliver electrically stimulating signals to the stomach wall through at least one stimulating electrode;

providing an attachment device for attaching the stimulator to the stomach wall;

providing at least one stimulating electrode;

advancing the gastric stimulator through the esophagus of a patient and towards an attachment site within the patient's stomach; and

attaching the stimulator device to the attachment site with the attachment device.

284. (Previously presented) The method of claim 283 further comprising the step of:

placing the at least one stimulating electrode in electrical contact with the stomach wall, whereby the at least one stimulating electrode is coupled to the electronic circuitry.

285. (Previously presented) The method of stimulating a stomach wall of claim 284 further comprising the steps of:

providing an endoscopic instrument including a device for identifying a site for attaching the at least one electrode to the stomach wall; and

identifying the attachment site with the endoscopic instrument before attaching the at least one electrode to the attachment site.

286. (Previously presented) The method of stimulating a stomach wall of claim 285 wherein the step of identifying the attachment site comprises electrically stimulating the site and observing the response.

287. (Previously presented) The method of stimulating a stomach wall of claim 283 further comprising the steps of:

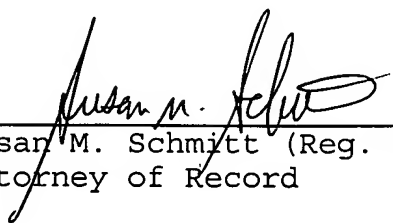
providing a stimulator engaging device; and

advancing the gastric stimulator through the esophagus and towards a stimulator attachment site within the stomach with the

stimulator engaging device.-

Respectfully submitted,

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